

HUMIDIFICATION OF HYDROCARBON MIXTURES
FOR USE IN POLYMER SYNTHESIS

ABSTRACT OF THE DISCLOSURE

A humidification system (**A**) for humidifying a dry hydrocarbon stream includes a column (**10**) which defines an interior cavity (**20**). The cavity is partially filled with a bed (**12**) of a packing material (**40**) and a layer of water (**20**), leaving a headspace above the water. An inlet (**52**) adjacent a lower end 5 of the cavity receives a dry hydrocarbon stream which is broken up by the packing material and dissolves water as it passes therethrough. Entrained water droplets fall out of the wet blend in a disengagement zone (**70**) above the water layer leaving the hydrocarbon stream humidified yet substantially free of liquid 10 water in an upper region (**72**) of the column.